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* * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:48:42 ON 27 FEB 2004

=> FILE REG
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 10:48:52 ON 27 FEB 2004

=> E TRANSGLUTAMINASE/CN
E1            1     TRANSGLUCOSIDASE L/CN
E2            1     TRANSGLUCOSYLASE/CN
E3            3 --> TRANSGLUTAMINASE/CN
E4            1     TRANSGLUTAMINASE ( PHYSARUM POLYCEPHALUM)/CN
E5            1     TRANSGLUTAMINASE (ASTERINA PECTINIFERA CELL NUCLEUS-ASSOCIAT
                    ED GENE NTG)/CN
E6            1     TRANSGLUTAMINASE (BACILLUS CEREUS STRAIN ATCC 14579 GENE BC3
                    963)/CN
E7            1     TRANSGLUTAMINASE (BACILLUS HALODURANS STRAIN C-125 GENE TGL)
                    /CN
E8            1     TRANSGLUTAMINASE (BACILLUS SUBTILIS GENE TGL)/CN
E9            1     TRANSGLUTAMINASE (BACILLUS SUBTILIS STRAIN AJ1307 CLONE PBST
                    G75-11 GENE TGL)/CN
E10           1     TRANSGLUTAMINASE (CATTLE CLONE ΛBETG201)/CN
E11           1     TRANSGLUTAMINASE (CHICKEN CHONDROCYTE REDUCED)/CN
E12           1     TRANSGLUTAMINASE (CRASSOSTREA GIGAS CLONE PCGTG4)/CN

=> S E3
L1            3 TRANSGLUTAMINASE/CN

=> D 1-3

L1   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   137741-97-0  REGISTRY
CN   Blood-coagulation factor XIIIa, blood platelet-derived (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   Transglutaminase
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   ADISNEWS, AGRICOLA, BIOSIS, CA, CAPLUS, CIN, PIRA, PROMT,
       TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               14 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
               14 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1   ANSWER 2 OF 3  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   80146-85-6  REGISTRY
CN   Glutamyltransferase, glutaminylpeptide γ- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Activa
CN   Activa MP
CN   Activa Supercurd
CN   Activa TG
CN   Activa TG-K
CN   Activa TG-M
CN   Activa TG-S
CN   Activa TG-TI
CN   Activa WM
CN   Akuthiba TG-S
```

CN E.C. 2.3.2.13
CN Glutaminylpeptide γ-glutamyltransferase
CN Koshikeep
CN Polyamine transglutaminase
CN PPQ 6117
CN Tissue transglutaminase
CN **Transglutaminase**
DR 300711-04-0
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, EMBASE, MSDS-OHS, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
3013 REFERENCES IN FILE CA (1907 TO DATE)
29 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3016 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 9067-75-8 REGISTRY
CN Blood-coagulation factor XIIIa (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Activated blood-coagulation factor XIII
CN Activated coagulation factor XIII
CN Blood-coagulation factor XIII, activated
CN Fibrin-crosslinking enzyme
CN Fibrinoligase
CN **Transglutaminase**
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CIN, EMBASE, PIRA, PROMT, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
537 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
538 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> E TRANSGLUTAMINASE/CN
E1 1 TRANSGLUCOSIDASE L/CN
E2 1 TRANSGLUCOSYLASE/CN
E3 3 --> TRANSGLUTAMINASE/CN
E4 1 TRANSGLUTAMINASE (PHYSARUM POLYCEPHALUM)/CN
E5 1 TRANSGLUTAMINASE (ASTERINA PECTINIFERA CELL NUCLEUS-ASSOCIATED GENE NTG)/CN
E6 1 TRANSGLUTAMINASE (BACILLUS CEREUS STRAIN ATCC 14579 GENE BC3963)/CN
E7 1 TRANSGLUTAMINASE (BACILLUS HALODURANS STRAIN C-125 GENE TGL)/CN
E8 1 TRANSGLUTAMINASE (BACILLUS SUBTILIS GENE TGL)/CN
E9 1 TRANSGLUTAMINASE (BACILLUS SUBTILIS STRAIN AJ1307 CLONE PBSTG75-11 GENE TGL)/CN
E10 1 TRANSGLUTAMINASE (CATTLE CLONE ΛBETG201)/CN
E11 1 TRANSGLUTAMINASE (CHICKEN CHONDROCYTE REDUCED)/CN
E12 1 TRANSGLUTAMINASE (CRASSOSTREA GIGAS CLONE PCGTG4)/CN

=>
=> E
E13 1 TRANSGLUTAMINASE (CYPRINUS CARPIO)/CN
E14 1 TRANSGLUTAMINASE (DE-1-METHIONINE) (CRASSOSTREA GIGAS CLONE PCGTG4)/CN
E15 1 TRANSGLUTAMINASE (DIROFILARIA IMMITIS GENE DITG PRECURSOR)/C

```
                    N
E16          1      TRANSGLUTAMINASE (GUINEA PIG LIVER CLONE PLTG-4)/CN
E17          1      TRANSGLUTAMINASE (HUMAN BRAIN SEQUENCE HOMOLOG 9)/CN
E18          1      TRANSGLUTAMINASE (HUMAN CLONE 1 GENE TGM1)/CN
E19          1      TRANSGLUTAMINASE (HUMAN CLONE RP4-734P14 GENE DJ734P14.3)/CN
E20          1      TRANSGLUTAMINASE (HUMAN EPIDERMIS CLONE PHETG-M)/CN
E21          1      TRANSGLUTAMINASE (HUMAN HEL CELL CLONE BF4 TISSUE ISOENZYME
                    TGH2 REDUCED)/CN
E22          1      TRANSGLUTAMINASE (HUMAN HEL CLONE BF15/BF1 TISSUE-TYPE REDUC
                    ED)/CN
E23          1      TRANSGLUTAMINASE (HUMAN PROSTATE-RESTRICTED REDUCED)(E.C.2.3
                    .2.13)/CN
E24          1      TRANSGLUTAMINASE (LIMULUS POLYPHEMUS) (EC 2.3.2.13)/CN

=> E
E25          1      TRANSGLUTAMINASE (ONCORHYNCHUS KETA CLONE PCLTGA3 679 AMINO
                    ACIDS)/CN
E26          1      TRANSGLUTAMINASE (ONCORHYNCHUS KETA CLONE PCLTGA3 680 AMINO
                    ACIDS)/CN
E27          1      TRANSGLUTAMINASE (ONCORHYNCHUS KETA CLONE PCLTGA4 679 AMINO
                    ACIDS)/CN
E28          1      TRANSGLUTAMINASE (ONCORHYNCHUS KETA CLONE PCLTGA4 680 AMINO
                    ACIDS)/CN
E29          1      TRANSGLUTAMINASE (PACIFASTACUS LENIUSCULUS HEMOCYTE)/CN
E30          1      TRANSGLUTAMINASE (PAGRUS MAJOR CLONE PSLTG5 TISSUE-TYPE ISOE
                    NZYME)/CN
E31          1      TRANSGLUTAMINASE (PARALICHTHYS OLIVACEUS CLONE PFLTG21 687 A
                    MINO ACIDS)/CN
E32          1      TRANSGLUTAMINASE (PARALICHTHYS OLIVACEUS CLONE PFLTG21 688 A
                    MINO ACIDS)/CN
E33          1      TRANSGLUTAMINASE (PARALICHTHYS OLIVACEUS LIVER CLONE PFLTG)/
                    CN
E34          1      TRANSGLUTAMINASE (PARGUS MAJOR LIVER CLONE PSLTG5 694 AMINO
                    ACIDS)/CN
E35          1      TRANSGLUTAMINASE (PARGUS MAJOR LIVER CLONE PSLTG5 695 AMINO
                    ACIDS)/CN
E36          1      TRANSGLUTAMINASE (PARGUS MAJOR LIVER CLONE PSLTG5)/CN

=> E
E37          1      TRANSGLUTAMINASE (SALMON) (EC 2.3.2.13)/CN
E38          1      TRANSGLUTAMINASE (SHEWANELLA ONEIDENSIS STRAIN MR-1 GENE SO1
                    405)/CN
E39          1      TRANSGLUTAMINASE (SHEWANELLA ONEIDENSIS STRAIN MR-1 GENE SO2
                    150)/CN
E40          1      TRANSGLUTAMINASE (STREPTOMYCES CINNAMONEUM STRAIN CBS 683.68
                    )/CN
E41          1      TRANSGLUTAMINASE (STREPTOMYCES CINNAMONEUS ALBOSPORUS STRAIN
                     CBS 683.68 PRECURSOR)/CN
E42          1      TRANSGLUTAMINASE (STREPTOMYCES MOBARAENSIS)/CN
E43          1      TRANSGLUTAMINASE (STREPTOVERTICILLIUM CINNAMONEUM)/CN
E44          1      TRANSGLUTAMINASE (STREPTOVERTICILLIUM MOBARAENSE STRAIN S-81
                    12 CLONE ΛTG1 )/CN
E45          3      TRANSGLUTAMINASE (STREPTOVERTICILLIUM MOBARAENSE)/CN
E46          1      TRANSGLUTAMINASE (STREPTOVERTICILLIUM STRAIN S-8112) (E.C. 2
                    .3.2.13)/CN
E47          1      TRANSGLUTAMINASE (SYNTHETIC STREPTOVERTICILLIUM GENE MTG)/CN
E48          1      TRANSGLUTAMINASE (THERAGRA CHALCOGRAMMA LIVER CLONE PALTG8)/
                    CN

=> E
E49          1      TRANSGLUTAMINASE (THERAGRA CHALCOGRAMMA MUSCLE CLONE PALTG8)
                    /CN
E50          1      TRANSGLUTAMINASE 1 (HUMAN 816-AMINO ACIDS) (E.C. 2.3.2.13)/C
                    N
E51          1      TRANSGLUTAMINASE 1 (K POLYPEPTIDE EPIDERMAL TYPE I, PROTEIN-
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                    GLUTAMINE-GAMMA-GLUTAMYLTRANSFERASE) (HUMAN CLONE MGC:21358
                    IMAGE:4747045)/CN
E52           1     TRANSGLUTAMINASE 1, K POLYPEPTIDE (MOUSE STRAIN FVB/N CLONE
                    MGC:31305 IMAGE:4221991)/CN
E53           1     TRANSGLUTAMINASE 2, C POLYPEPTIDE (MOUSE STRAIN NMRI CLONE M
                    GC:6152 IMAGE:3256943)/CN
E54           1     TRANSGLUTAMINASE 4 (PROSTATE) (HUMAN CLONE MGC:12298 IMAGE:3
                    950865)/CN
E55           1     TRANSGLUTAMINASE ACTIVE SITE-CONTAINING PROTEIN 9 (HUMAN CLO
                    NE PBS-0397H02)/CN
E56           1     TRANSGLUTAMINASE FAMILY PROTEIN (MYCOBACTERIUM TUBERCULOSIS
                    STRAIN CDC1551 GENE MT2642)/CN
E57           1     TRANSGLUTAMINASE PREPRO- (STREPTOMYCES CINNAMONEUM STRAIN CB
                    S 683.68)/CN
E58           1     TRANSGLUTAMINASE PRO- (STREPTOMYCES CINNAMONEUM STRAIN CBS 6
                    83.68)/CN
E59           1     TRANSGLUTAMINASE SUBSTRATE AND WAP MOTIF-CONTG. PROTEIN 4 (C
                    ATTLE FRAGMENT REDUCED)/CN
E60           1     TRANSGLUTAMINASE SUBSTRATE AND WAP MOTIF-CONTG. PROTEIN 5 (C
                    ATTLE FRAGMENT REDUCED)/CN

=> S E51-52
              1 "TRANSGLUTAMINASE 1 (K POLYPEPTIDE EPIDERMAL TYPE I, PROTEIN-GLU
                TAMINE-GAMMA-GLUTAMYLTRANSFERASE) (HUMAN CLONE MGC:21358 IMAGE:4
                747045)"/CN
              1 "TRANSGLUTAMINASE 1, K POLYPEPTIDE (MOUSE STRAIN FVB/N CLONE
                MGC:31305 IMAGE:4221991)"/CN
L2            2 ("TRANSGLUTAMINASE 1 (K POLYPEPTIDE EPIDERMAL TYPE I, PROTEIN-GL
                UTAMINE-GAMMA-GLUTAMYLTRANSFERASE) (HUMAN CLONE MGC:21358 IMAGE:
                4747045)"/CN OR "TRANSGLUTAMINASE 1, K POLYPEPTIDE (MOUSE STRAIN
                 FVB/N CLONE MGC:31305 IMAGE:4221991)"/CN)

=> S E50
L3            1 "TRANSGLUTAMINASE 1 (HUMAN 816-AMINO ACIDS) (E.C. 2.3.2.13)"/CN

=> SET EXPAND CONT
SET COMMAND COMPLETED

=> SEL L1 2 NAME
E61 THROUGH E77 ASSIGNED

=> SEL L2 NAME
E78 THROUGH E83 ASSIGNED

=> SEL L3 NAME
E84 THROUGH E85 ASSIGNED

=> INDEX BIOSCIENCE
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               25.49      25.70

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS,
       BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,
       CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU,
       DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 10:50:48 ON 27 FEB 2004

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> S E61-85
         29   FILE ADISCTI
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 1 FILES SEARCHED...
        3   FILE ADISINSIGHT
        4   FILE ADISNEWS
      256   FILE AGRICOLA
 4 FILES SEARCHED...
       39   FILE ANABSTR
      123   FILE AQUASCI
      115   FILE BIOBUSINESS
       37   FILE BIOCOMMERCE
 8 FILES SEARCHED...
     4327   FILE BIOSIS
 9 FILES SEARCHED...
      272   FILE BIOTECHABS
      272   FILE BIOTECHDS
     1424   FILE BIOTECHNO
12 FILES SEARCHED...
      423   FILE CABA
      847   FILE CANCERLIT
14 FILES SEARCHED...
     4082   FILE CAPLUS
15 FILES SEARCHED...
       80   FILE CEABA-VTB
        1   FILE CEN
       15   FILE CIN
      221   FILE CONFSCI
19 FILES SEARCHED...
        6   FILE CROPU
21 FILES SEARCHED...
      172   FILE DISSABS
       48   FILE DDFB
23 FILES SEARCHED...
      198   FILE DDFU
     2343   FILE DGENE
25 FILES SEARCHED...
       48   FILE DRUGB
        3   FILE DRUGMONOG2
27 FILES SEARCHED...
        7   FILE IMSDRUGNEWS
      293   FILE DRUGU
        7   FILE IMSRESEARCH
30 FILES SEARCHED...
       39   FILE EMBAL
     2758   FILE EMBASE
32 FILES SEARCHED...
     1476   FILE ESBIOBASE
33 FILES SEARCHED...
      121   FILE FEDRIP
        3   FILE FOMAD
35 FILES SEARCHED...
        6   FILE FOREGE
      603   FILE FROSTI
      455   FILE FSTA
38 FILES SEARCHED...
     1931   FILE GENBANK
        2   FILE HEALSAFE
      319   FILE IFIPAT
41 FILES SEARCHED...
       76   FILE IMSPRODUCT
      550   FILE JICST-EPLUS
43 FILES SEARCHED...
      104   FILE KOSMET
      792   FILE LIFESCI
45 FILES SEARCHED...
        3   FILE MEDICONF
     3726   FILE MEDLINE
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  47 FILES SEARCHED...
        16   FILE NIOSHTIC
        18   FILE NTIS
  49 FILES SEARCHED...
        29   FILE OCEAN
      9931   FILE PASCAL
  52 FILES SEARCHED...
         7   FILE PHAR
         1   FILE PHARMAML
        42   FILE PHIN
       358   FILE PROMT
  58 FILES SEARCHED...
         6   FILE RDISCLOSURE
      4286   FILE SCISEARCH
  60 FILES SEARCHED...
         1   FILE SYNTHLINE
      1379   FILE TOXCENTER
  62 FILES SEARCHED...
      1415   FILE USPATFULL
  63 FILES SEARCHED...
        96   FILE USPAT2
  64 FILES SEARCHED...
         7   FILE VETU
  66 FILES SEARCHED...
       644   FILE WPIDS
  67 FILES SEARCHED...
       644   FILE WPINDEX

  63 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L4   QUE ("ACTIVA MP"/BI OR "ACTIVA SUPERCURD"/BI OR "ACTIVA TG-K"/BI OR "ACTIV
       A TG-M"/BI OR "ACTIVA TG-S"/BI OR "ACTIVA TG-TI"/BI OR "ACTIVA TG"/BI
       OR "ACTIVA WM"/BI OR ACTIVA/BI OR "AKUTHIBA TG-S"/BI OR "E.C. 2.3.2.13
       "/BI OR "GLUTAMINYLPEPTIDE Γ-GLUTAMYLTRANSFERASE"/BI OR KOSHIKEE
       P/BI OR "POLYAMINE TRANSGLUTAMINASE"/BI OR "PPQ 6117"/BI OR "TISSUE TR
       ANSGLUTAMINASE"/BI OR TRANSGLUTAMINASE/BI OR "GENBANK AAH26422 (TRANSL
       ATED FROM: GENBANK BC026422)"/BI OR "GENBANK AAH26422"/BI OR "GENBANK
       AAH34699 (TRANSLATED FROM: GENBANK BC034699)"/BI OR "GENBANK AAH34699"
       /BI OR "TRANSGLUTAMINASE 1 (K POLYPEPTIDE EPIDERMAL TYPE I, PROTEIN-GL
       UTAMINE-GAMMA-GLUTAMYLTRANSFERASE) (HUMAN CLONE MGC:21358 IMAGE:474704
       5)"/BI OR "TRANSGLUTAMINASE 1, K POLYPEPTIDE (MOUSE STRAIN FVB/N CLONE
        MGC:31305 IMAGE:4221991)"/BI OR "GLUTAMYLTRANSFERASE, GLUTAMINYLPEPTI
       DE Γ- (HUMAN ISOENZYME 1 REDUCED)"/BI OR "TRANSGLUTAMINASE 1 (HU
       MAN 816-AMINO ACIDS) (E.C. 2.3.2.13)"/BI)

=> s (slv or synthetic lipid vesicle or lipid vesicle)
        16   FILE ADISCTI
        22   FILE ADISINSIGHT
        97   FILE AGRICOLA
        14   FILE ANABSTR
        47   FILE AQUASCI
        78   FILE BIOBUSINESS
        24   FILE BIOCOMMERCE
      3296   FILE BIOSIS
        66   FILE BIOTECHABS
        66   FILE BIOTECHDS
      1022   FILE BIOTECHNO
       215   FILE CABA
       213   FILE CANCERLIT
      3198   FILE CAPLUS
        41   FILE CEABA-VTB
         8   FILE CEN
        26   FILE CIN
        56   FILE CONFSCI
        11   FILE CROPU
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       210   FILE DISSABS
        23   FILE DDFB
  23 FILES SEARCHED...
       141   FILE DDFU
       112   FILE DGENE
        23   FILE DRUGB
         3   FILE DRUGMONOG2
        13   FILE IMSDRUGNEWS
       228   FILE DRUGU
        18   FILE IMSRESEARCH
        13   FILE EMBAL
  31 FILES SEARCHED...
      2458   FILE EMBASE
       766   FILE ESBIOBASE
        32   FILE FEDRIP
         9   FILE FOREGE
        18   FILE FROSTI
       219   FILE FSTA
       202   FILE GENBANK
         2   FILE HEALSAFE
       416   FILE IFIPAT
        89   FILE JICST-EPLUS
        13   FILE KOSMET
       702   FILE LIFESCI
      2002   FILE MEDLINE
        10   FILE NIOSHTIC
        83   FILE NTIS
  49 FILES SEARCHED...
         9   FILE OCEAN
       759   FILE PASCAL
        17   FILE PHAR
         3   FILE PHARMAML
        31   FILE PHIN
       499   FILE PROMT
         2   FILE RDISCLOSURE
      2412   FILE SCISEARCH
         5   FILE SYNTHLINE
       916   FILE TOXCENTER
      3312   FILE USPATFULL
       171   FILE USPAT2
         3   FILE VETU
       332   FILE WPIDS
  67 FILES SEARCHED...
       332   FILE WPINDEX

  59 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L5   QUE (SLV OR SYNTHETIC LIPID VESICLE OR LIPID VESICLE)

=> s l4 (l)l5
   1 FILES SEARCHED...
   4 FILES SEARCHED...
   8 FILES SEARCHED...
         6   FILE BIOSIS
   9 FILES SEARCHED...
         1   FILE BIOTECHABS
         1   FILE BIOTECHDS
         3   FILE BIOTECHNO
  12 FILES SEARCHED...
  13 FILES SEARCHED...
         1   FILE CANCERLIT
  14 FILES SEARCHED...
         7   FILE CAPLUS
  15 FILES SEARCHED...
         1   FILE CIN
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  19 FILES SEARCHED...
  21 FILES SEARCHED...
  22 FILES SEARCHED...
  24 FILES SEARCHED...
  25 FILES SEARCHED...
  27 FILES SEARCHED...
  29 FILES SEARCHED...
  30 FILES SEARCHED...
         4   FILE EMBASE
  32 FILES SEARCHED...
         3   FILE ESBIOBASE
  33 FILES SEARCHED...
         2   FILE FEDRIP
  34 FILES SEARCHED...
  39 FILES SEARCHED...
  41 FILES SEARCHED...
  43 FILES SEARCHED...
         1   FILE LIFESCI
  45 FILES SEARCHED...
         4   FILE MEDLINE
  47 FILES SEARCHED...
  49 FILES SEARCHED...
  51 FILES SEARCHED...
  52 FILES SEARCHED...
  58 FILES SEARCHED...
         5   FILE SCISEARCH
  60 FILES SEARCHED...
         2   FILE TOXCENTER
  62 FILES SEARCHED...
        20   FILE USPATFULL
  63 FILES SEARCHED...
  64 FILES SEARCHED...
  66 FILES SEARCHED...
         2   FILE WPIDS
  67 FILES SEARCHED...
         2   FILE WPINDEX

  17 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L6   QUE L4 (L) L5

=> d rank
F1          20   USPATFULL
F2           7   CAPLUS
F3           6   BIOSIS
F4           5   SCISEARCH
F5           4   EMBASE
F6           4   MEDLINE
F7           3   BIOTECHNO
F8           3   ESBIOBASE
F9           2   FEDRIP
F10          2   TOXCENTER
F11          2   WPIDS
F12          2   WPINDEX
F13          1   BIOTECHABS
F14          1   BIOTECHDS
F15          1   CANCERLIT
F16          1   CIN
F17          1   LIFESCI


=> file hits
COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                              ENTRY     SESSION
FULL ESTIMATED COST                           37.62       63.32
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=> s l6
   1 FILES SEARCHED...
   2 FILES SEARCHED...
   3 FILES SEARCHED...
   4 FILES SEARCHED...
   5 FILES SEARCHED...
   6 FILES SEARCHED...
   7 FILES SEARCHED...
   8 FILES SEARCHED...
   9 FILES SEARCHED...
  10 FILES SEARCHED...
  11 FILES SEARCHED...
  13 FILES SEARCHED...
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L7          62 L6

=> dup rem l7
DUPLICATE IS NOT AVAILABLE IN 'FEDRIP'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L7
L8            31 DUP REM L7 (31 DUPLICATES REMOVED)
                 ANSWERS '1-20' FROM FILE USPATFULL
                 ANSWERS '21-27' FROM FILE CAPLUS
                 ANSWER '28' FROM FILE SCISEARCH
                 ANSWERS '29-30' FROM FILE FEDRIP
                 ANSWER '31' FROM FILE CIN

=> d bib abs 1-28

L8   ANSWER 1 OF 31  USPATFULL on STN                    DUPLICATE 6
AN     94:102222  USPATFULL
TI     Localized delivery using fibronectin conjugates
IN     Weiner, Alan L., Plainsboro, NJ, United States
       Lenk, Robert P., Lambertville, NJ, United States
       Carpenter-Green, Sharon S., Cranbury, NJ, United States
       Fountain, Michael W., Plainsboro, NJ, United States
PA     The Liposome Company, Inc., Princeton, NJ, United States (U.S.
       corporation)
PI     US 5366958              19941122
AI     US 1993-110193          19930820 (8)
RLI    Continuation of Ser. No. US 1990-611336, filed on 9 Nov 1990, now
       abandoned which is a continuation of Ser. No. US 1983-533583, filed on
       19 Sep 1983, now abandoned
DT     Utility
FS     Granted
EXNAM  Primary Examiner: Stone, Jacqueline
LREP   Bloom, Allen, Feeney, Joanne Longo
CLMN   Number of Claims: 25
ECL    Exemplary Claim: 1
DRWN   No Drawings
LN.CNT 838
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     This invention encompasses new and substantially improved methods and
       compositions for delivery of therapeutic agents to specifically chosen
       body sites. Conjugation of fibronectin to bioactive agents or to lipids
       or to liposomes which entrap the bioactive agents permits immobilization
       of the bioactive agent when administered at collagen-, heparin-,
       hyaluronic acid-, fibrin/fibrinogen-, or ganglioside-rich sites.
       Covalent conjugation is achieved by two methods: (1) the enzymatically
       catalyzed cross-linkage of fibronectin to an amine containing compound,
       and (2) by a modified NHS method which permits formation of peptide
       bonds between fibronectin and lipid compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8   ANSWER 2 OF 31  USPATFULL on STN
AN     2004:50383  USPATFULL
TI     Compositions and methods for enhanced mucosal delivery of interferon
       beta
IN     Quay, Steven C., Edmonds, WA, UNITED STATES
       Gupta, Malini, Dix Hills, NY, UNITED STATES
       de Meireles, Jorge C., Syosset, NY, UNITED STATES
       Abd El-Shafy, Mohammed, Hauppauge, NY, UNITED STATES
PA     Nastech Pharmaceutical Company Inc. (U.S. corporation)
PI     US 2004037809      A1   20040226
AI     US 2003-462452     A1   20030616 (10)
PRAI   US 2002-393066P     20020628 (60)
DT     Utility
FS     APPLICATION
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LREP PAUL G. LUNN, ESQ. NASTECH PHARMACEUTICAL COMPANY, INC., 3450 MONTE VILLA PARKWAY, BOTHELL, WA, 98021-8906
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 10725
AB Compositions and methods are provided for intranasal delivery of interferon-β yielding improved pharmacokinetic and pharmacodynamic results. In certain aspects of the invention, the interferon-β is delivered to the intranasal mucosa along with one or more intranasal delivery-enhancing agent(s) to yield substantially increased absorption and/or bioavailability of the interferon-β and/or a substantially decreased time to maximal concentration of interferon-β in a tissue of a subject as compared to controls where the interferon-β is administered to the same intranasal site alone or formulated according to previously disclosed reports. The enhancement of intranasal delivery of interferon-β according to the methods and compositions of the present invention allows for the effective pharmaceutical use of these agents to treat a variety of diseases and conditions in mammalian subjects.

L8 ANSWER 3 OF 31 USPATFULL on STN
AN 2004:38077 USPATFULL
TI Dopamine agonist formulations for enhanced central nervous system delivery
IN Quay, Steven C., Edmonds, WA, UNITED STATES
PA Nastech Pharmaceutical Company Inc, Hauppauge, NY (U.S. corporation)
PI US 2004028613 A1 20040212
AI US 2001-891630 A1 20010625 (9)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 8045
AB Pharmaceutical formulations are described comprising at least one dopamine receptor agonist and one or more mucosal delivery-enhancing agents for enhanced mucosal delivery of the dopamine receptor agonist. In one aspect, the mucosal delivery formulations and methods provide enhanced delivery of the dopamine receptor agonist to the central nervous sytstem (CNS), for example by yielding dopamine receptor agonist concentrations in the cerebral spinal fluid of 5% or greater of the peak dopamine agonist concentrations in the blood plasma following administration to a mammalian subject. Exemplary formulations and methods within the invention utilize apomorphine as the dopamine receptor agonist. Other exemplary methods and formulations focus in intranasal administration of a dopamine receptor agonist. The formulations and methods of the invention are useful for treating a variety of diseases and conditions in mammalian subjects, including Parkinson's disease, male erectile dysfunction, female sexual dysfunction, among others. In alternate aspects, the mucosal delivery formulations and methods of the invention include one, or any combination of, mucosal delivery-enhancing agents selected from (a) aggregation inhibitory agents; (b) charge modifying agents; (c) pH control agents; (d) degradative enzyme inhibitors; (e) mucolytic or mucus clearing agents; (f) ciliostatic agents; (g) membrane penetration-enhancing agents; (h) modulatory agents of epithelial junction physiology; (i) vasodilator agents; (j) selective transport-enhancing agents; and (k) stabilizing delivery vehicles, carriers, supports or complex-forming agents. These methods and formulations of the invention provide for significantly enhanced absorption of dopamine receptor agonists into or across a nasal mucosal

barrier to a target site of action, for example the CNS.

L8 ANSWER 4 OF 31 USPATFULL on STN
AN 2004:31718 USPATFULL
TI Methods and compositions for inhibiting neoplastic cell growth
IN Yen, Frances, San Diego, CA, UNITED STATES
Denison, Blake, San Diego, CA, UNITED STATES
Duclert, Aymeric, Saint-Maur, FRANCE
Bougueleret, Lydie, Petit Lancy, SWITZERLAND
Clusel, Catherine, Montreuil-sous-Bois, FRANCE
Dumas Milne-Edwards, Jean-Baptiste, Paris, FRANCE
Bihain, Bernard, Encinitas, CA, UNITED STATES
Bour, Barbara, San Diego, CA, UNITED STATES
Ebbets-Reed, Dana, Encinitas, CA, UNITED STATES
Salter-Cid, Luisa, San Diego, CA, UNITED STATES
PA GENSET, S.A., Paris, FRANCE (U.S. corporation)
PI US 2004023860 A1 20040205
AI US 2002-121034 A1 20020411 (10)
RLI Division of Ser. No. US 2000-750580, filed on 28 Dec 2000, GRANTED, Pat. No. US 6455280 Continuation-in-part of Ser. No. US 2000-599362, filed on 21 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 1999-469099, filed on 21 Dec 1999, ABANDONED
PRAI WO 2000-IB101 20000621
WO 1999-IB2058 19991220
US 1998-113686P 19981222 (60)
US 1999-141032P 19990625 (60)
DT Utility
FS APPLICATION
LREP John Lucas, Ph.D., J.D., GENSET CORP., 10665 Sorrento Valley Road, San Diego, CA, 92121-1609
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 10944
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides the genomic sequence of GSSP-2, GSSP-2 cDNAs and GSSP-2 polypeptides. Further the invention provides polynucleotides including biallelic markers derived from the GSSP-2 gene and from genomic regions flanking the gene. This invention also provides polynucleotides and methods suitable for genotyping a nucleic acid molecule containing sample for one or more biallelic markers of the invention. Further, the invention provides methods to detect a statistical correlation between a biallelic marker allele and a phenotype and/or between a biallelic marker haplotype and a phenotype. The invention also concerns methods and compositions for killing neoplastic cells or inhibiting neoplastic cell growth. In particular, the present invention concerns cell proliferation arresting/inhibiting and apoptosis/necrosis inducing compositions and methods for the treatment of tumors. The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 31 USPATFULL on STN
AN 2004:30701 USPATFULL
TI Regulation of cell proliferation and differentiation using topically applied peptides
IN Holick, Michael F., Sudbury, MA, UNITED STATES
PI US 2004022838 A1 20040205
AI US 2003-311366 A1 20030528 (10)
WO 2001-US19650 20010620
DT Utility
FS APPLICATION
LREP STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W.,

WASHINGTON, DC, 20005
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 1368
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods are disclosed for the regulation of cell differentiation and proliferation, e.g., for treating hyperproliferative skin disorders, such as psoriasis, for enhancing wound healing, for stimulating hair growth and inhibiting hair growth, by topical administration of parathyroid hormone (PTH), parathyroid related peptide (PTHrP), or fragment, analog or derivative thereof, and salts thereof, encapsulated by liposomes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 31 USPATFULL on STN
AN 2003:318741 USPATFULL
TI Expression system for ABC transporters
IN Molday, Robert S., Vancouver, CANADA
Ahn, Jinhi, Vancouver, CANADA
Hauswirth, William S., Gainesville, FL, UNITED STATES
PI US 2003224485 A1 20031204
AI US 2003-431323 A1 20030506 (10)
PRAI CA 2002-2385110 20020506
US 2002-391644P 20020627 (60)
DT Utility
FS APPLICATION
LREP CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC, 1420 FIFTH AVENUE, SUITE 2800, SEATTLE, WA, 98101-2347
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 1522
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides a system and method for expressing a functional ABC (ATP-binding cassette) transporter in a host cell. A system comprises two or more expression vectors each comprising a nucleic acid molecule encoding one or more domains of the ABCR transporter gene and a means for expressing the nucleic acid molecule. Each expression vector of the system includes a nucleic acid molecule that encodes a domain that is functionally complementary to domains contained in the other expression vectors of the system but when taken together comprise the full ABCR transporter gene. Co-transfection of the expression vectors into a host cell provides co-expression of each of the domains of the protein which assemble to form an ABC transporter protein having functional characteristics of the full-length protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 31 USPATFULL on STN
AN 2003:105884 USPATFULL
TI Methods for ameliorating icthyosiform skin diseases
IN Steinert, Peter, Bethesda, MD, UNITED STATES
Marekov, Lyuben, Rockville, MD, UNITED STATES
Nemes, Zoltan, Debrecen, HUNGARY
PI US 2003072795 A1 20030417
AI US 2001-23275 A1 20011213 (10)
RLI Continuation of Ser. No. WO 2000-US17235, filed on 22 Jun 2000, PENDING
PRAI US 1999-140656P 19990623 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614
CLMN Number of Claims: 14

ECL Exemplary Claim: 1
DRWN 20 Drawing Page(s)
LN.CNT 2582
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the discovery of a method to provide stabilized transglutaminase 1 enzyme, involucrin, and other molecules necessary for the assembly of the cell envelope to skin cells. Novel biological tools, prophylactics, therapeutics, cosmetics, and methods of use of the foregoing for study, prevention, and treatment of skin disorders are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 31 USPATFULL on STN
AN 2003:86996 USPATFULL
TI Apolipoprotein A-I agonists and their use to treat dyslipidemic disorders
IN Dasseux, Jean-Louis, Mannheim, GERMANY, FEDERAL REPUBLIC OF
Sekul, Renate, Ladenburg, GERMANY, FEDERAL REPUBLIC OF
Buttner, Klaus, Epfenbach, GERMANY, FEDERAL REPUBLIC OF
Cornut, Isabelle, Edingen-Neckarhausen, GERMANY, FEDERAL REPUBLIC OF
Metz, Gunther, Edingen-Neckarhausen, GERMANY, FEDERAL REPUBLIC OF
PI US 2003060604 A1 20030327
AI US 2002-99574 A1 20020315 (10)
RLI Continuation of Ser. No. US 1999-465718, filed on 17 Dec 1999, PENDING
DT Utility
FS APPLICATION
LREP Pennie & Edmonds, LLP, 3300 Hillview Avenue, Palo Alto, CA, 94304
CLMN Number of Claims: 55
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 6456
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides peptides and peptide analogues that mimic the structural and pharmacological properties of human ApoA-I. The peptides and peptide analogues are useful to treat a variety of disorders associated with dyslipidemia.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 31 USPATFULL on STN
AN 2002:308509 USPATFULL
TI ADAM polynucleotides, polypeptides, and antibodies
IN Ruben, Steven M., Olney, MD, UNITED STATES
Ni, Jian, Germantown, MD, UNITED STATES
Hastings, Gregg A., Westlake Village, CA, UNITED STATES
Shi, Yanggu, Gaithersburg, MD, UNITED STATES
Wei, Ping, Brookeville, MD, UNITED STATES
PA Human Genome Sciences, Inc., Rockville, MD, UNITED STATES (U.S. corporation)
PI US 2002173640 A1 20021121
AI US 2002-125452 A1 20020419 (10)
RLI Continuation of Ser. No. US 2001-955504, filed on 19 Sep 2001, PENDING
Continuation of Ser. No. US 2000-712907, filed on 16 Nov 2000, PENDING
Continuation of Ser. No. WO 2000-US14308, filed on 25 May 2000, UNKNOWN
PRAI US 2000-234222P 20000921 (60)
US 1999-136388P 19990527 (60)
US 1999-142930P 19990709 (60)
US 2000-178717P 20000128 (60)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)

LN.CNT 13925
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel human ADAM polypeptides and isolated nucleic acids containing the coding regions of the genes encoding such polypeptides. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human ADAM polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human ADAM polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 31 USPATFULL on STN
AN 2002:259377 USPATFULL
TI Methods and compositions for inhibiting neoplastic cells growth
IN Yen, Frances, San Diego, CA, UNITED STATES
Denison, Blake, San Diego, CA, UNITED STATES
Bour, Barbara, San Diego, CA, UNITED STATES
Bihain, Bernard, Encinitas, CA, UNITED STATES
Edwards, Jean-Baptiste Dumas Milne, Paris, FRANCE
Duclert, Aymeric, Saint-Maur, FRANCE
Bougueleret, Lydie, Petit Lancy, SWITZERLAND
Ebbets-Reed, Dana, Encinitas, CA, UNITED STATES
Salter-Cid, Luisa, San Diego, CA, UNITED STATES
PI US 2002142949 A1 20021003
AI US 2000-751877 A1 20001228 (9)
DT Utility
FS APPLICATION
LREP GENSET, JOHN LUCAS, PHD, J.D., 10665 SORRENTO VALLEY RD, SAN DIEGO, CA, 92121
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 11080
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides the genomic sequence of GSSP-2, GSSP-2 cDNAs and GSSP-2 polypeptides. Further the invention provides polynucleotides including biallelic markers derived from the GSSP-2 gene and from genomic regions flanking the gene. This invention also provides polynucleotides and methods suitable for genotyping a nucleic acid molecule containing sample for one or more biallelic markers of the invention. Further, the invention provides methods to detect a statistical correlation between a biallelic marker allele and a phenotype and/or between a biallelic marker haplotype and a phenotype. The invention also concerns methods and compositions for killing neoplastic cells or inhibiting neoplastic cell growth. In particular, the present invention concerns cell proliferation arresting/inhibiting and apoptosis/necrosis inducing compositions and methods for the treatment of tumors. The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 31 USPATFULL on STN
AN 2002:198415 USPATFULL
TI Encapsulation of compounds in vesicles
IN Callisen, Thomas Honger, Frederiksberg C, DENMARK
PA Novozymes A/S, Bagsvaerd, DENMARK (non-U.S. corporation)
PI US 2002106511 A1 20020808
AI US 2001-5321 A1 20011203 (10)
PRAI DK 2000-1810 20001201
US 2000-255268P 20001213 (60)
DT Utility
FS APPLICATION
LREP NOVOZYMES NORTH AMERICA, INC., 500 FIFTH AVENUE, SUITE 1600, NEW YORK,

NY, 10110
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 560
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Vesicles formed from synthetic polymers are used for encapsulation of compounds in order to protect the compounds from the chemical environment in which they are used.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 31 USPATFULL on STN
AN 2002:12275 USPATFULL
TI Isolated cathepsin L type cysteine proteases and reducing intercorneocyte cohesion/promoting desquamation therewith
IN Bernard, Dominique, Paris, FRANCE
Kermici, Michel, Paris, FRANCE
Bernard-Bourboulon, Marie-Alix, Noisy Le Sec, FRANCE
PI US 2002006654 A1 20020117
AI US 2001-884953 A1 20010621 (9)
RLI Division of Ser. No. US 1998-143446, filed on 28 Aug 1998, GRANTED, Pat. No. US 6274364
PRAI FR 1997-10818 19970829
DT Utility
FS APPLICATION
LREP Norman H. Stepno, BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box 1404, Alexandria, VA, 22313-1404
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 899
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Isolated, substantially pure natural or synthetic polypeptides comprising cathepsin L type cysteine proteases, or polypeptide fragments or polypeptide admixtures obtained via proteolysis thereof, are useful for reducing intercorneocyte cohesion and, thus, for promoting desquamation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 31 USPATFULL on STN
AN 2002:246560 USPATFULL
TI Methods and compositions for inhibiting neoplastic cell growth
IN Edwards, Jean-Baptiste Dumas Milne, Paris, FRANCE
Duclert, Aymeric, Saint-Maur, FRANCE
Bougueleret, Lydie, PetitLancy, SWITZERLAND
Clusel, Catherine, Montreuil-sous-Bois, FRANCE
PA Genset S.A., Paris, FRANCE (non-U.S. corporation)
PI US 6455280 B1 20020924
AI US 2000-750580 20001228 (9)
RLI Continuation-in-part of Ser. No. US 2000-599362, filed on 21 Jun 2000
Continuation-in-part of Ser. No. WO 2000-IB1011, filed on 21 Jun 2000
Continuation-in-part of Ser. No. US 1999-469099, filed on 21 Dec 1999
Continuation-in-part of Ser. No. WO 1999-IB2058, filed on 20 Dec 1999
PRAI US 1999-141032P 19990625 (60)
US 1998-113686P 19981222 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Bansal, Geetha P.; Assistant Examiner: Davis, Natalie
LREP Lucas, John M., Follette, Peter, Voellmy, Lukas R.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 10937

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides the genomic sequence of GSSP-2, GSSP-2 cDNAs and GSSP-2 polypeptides. Further the invention provides polynucleotides including biallelic markers derived from the GSSP-2 gene and from genomic regions flanking the gene. This invention also provides polynucleotides and methods suitable for genotyping a nucleic acid molecule containing sample for one or more biallelic markers of the invention. Further, the invention provides methods to detect a statistical correlation between a biallelic marker allele and a phenotype and/or between a biallelic marker haplotype and a phenotype. The invention also concerns methods and compositions for killing neoplastic cells or inhibiting neoplastic cell growth. In particular, the present invention concerns cell proliferation arresting/inhibiting and apoptosis/necrosis inducing compositions and methods for the treatment of tumors. The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 31 USPATFULL on STN

AN 2002:108624 USPATFULL

TI N-[1, (1-1) -dialkyloxy] - and N- [1, (1-1) -dialkenyloxy]-alk-1-yl-N,N,N-tetrasubstituted ammonium lipids and uses therefor

IN Eppstein, Deborah A., 3401 Hillview Ave., P.O. Box 10850, Palo Alto, CA, United States 94303
Felgner, Philip L., 3401 Hillview Ave., P.O. Box 10850, Palo Alto, CA, United States 94303
Gadek, Thomas R., 3401 Hillview Ave., P.O. Box 10850, Palo Alto, CA, United States 94303
Jones, Gordon H., 3401 Hillview Ave., P.O. Box 10850, Palo Alto, CA, United States 94303
Roman, Richard B., 3401 Hillview Ave., P.O. Box 10850, Palo Alto, CA, United States 94303

PI US 6387395 B1 20020514

AI US 1994-348635 19941202 (8)

RLI Continuation of Ser. No. US 1994-237807, filed on 5 May 1994, now patented, Pat. No. US 5622712 Division of Ser. No. US 1993-15738, filed on 10 Feb 1993, now patented, Pat. No. US 5366737 Division of Ser. No. US 1990-614412, filed on 16 Nov 1990, now patented, Pat. No. US 5208036 Division of Ser. No. US 1990-524257, filed on 15 May 1990, now patented, Pat. No. US 5049386 Division of Ser. No. US 1989-428815, filed on 27 Oct 1989, now patented, Pat. No. US 4946787 Division of Ser. No. US 1987-114809, filed on 29 Oct 1987, now patented, Pat. No. US 4897355 Continuation-in-part of Ser. No. US 1986-877916, filed on 24 Jun 1986, now abandoned Continuation-in-part of Ser. No. US 1985-689407, filed on 7 Jan 1985, now abandoned

DT Utility

FS GRANTED

EXNAM Primary Examiner: Kishore, Gollamudi S.

CLMN Number of Claims: 26

ECL Exemplary Claim: 1

DRWN 3 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 3019

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to compounds of the formula ##STR1##

or an optical isomer thereof wherein R.sup.1 and R.sup.2 are the same or different and are an alkyl or alkenyl group of 6 to 24 carbon atoms; R.sup.3, R.sup.4 and R.sup.5 are the same or different and are alkyl of 1 to 8 carbon atoms, aryl, aralkyl of 7 to 11 carbon atoms, or when two or three of R.sup.3, R.sup.4, and R.sup.5 are taken together to form quinuclidino, piperidino, pyrrolidino, or morpholino; n is 1 to 8; and X is a pharmaceutically acceptable anion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 31 USPATFULL on STN
AN 2001:131083 USPATFULL
TI Isolated cathepsin L type cysteine proteases and reducing intercorneocyte cohesion/promoting desquamation therewith
IN Bernard, Dominique, Paris, France
Kermici, Michel, Paris, France
Bernard-Bourboulon, Marie-Alix, Noisy le Sec, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 6274364 B1 20010814
AI US 1998-143446 19980828 (9)
PRAI FR 1997-10818 19970829
DT Utility
FS GRANTED
EXNAM Primary Examiner: Weber, Jon P.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 10 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 837
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A cathepsin L type cysteine protease has been isolated from the healthy stratum corneum of human skin. The protease has a pH optimum of 5 to 5.5 and mass of about 28 kDa.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 31 USPATFULL on STN
AN 2000:174129 USPATFULL
TI Preparation for the application of agents in mini-droplets
IN Cevc, Gregor, Heimstetten, Germany, Federal Republic of
PA Idea AG, Munich, Germany, Federal Republic of (non-U.S. corporation)
PI US 6165500 20001226
AI US 1992-844664 19920408 (7)
PRAI DE 1990-4026834 19900824
DE 1990-4026833 19900824
DE 1991-4107153 19910306
WO 1991-EP1596 19910822
DT Utility
FS Granted
EXNAM Primary Examiner: Kishore, Gollamudi S.
LREP Davidson, Davidson & Kappel, LLC
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 31 Drawing Figure(s); 21 Drawing Page(s)
LN.CNT 4336
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a preparation for the application of agents in the form of minuscule droplets of fluid, in particular provided with membrane-like structures consisting of one or several layers of amphiphilic molecules, or an amphiphilic carrier substance, in particular for transporting the agent into and through natural barriers such as skin and similar materials. The preparation contains a concentration of edge active substances which amounts to up to 99 mol-% of the agent concentration which is required for the induction of droplet solubilization. Such preparations are suitable, for example, for the non-invasive applications of antidiabetics, in particular of insulin. The invention, moreover, relates to the methods for the preparation of such formulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 31 USPATFULL on STN
AN 97:73304 USPATFULL
TI Fibrinogen-coated liposomes

IN Retzinger, Gregory Scott, Cincinnati, OH, United States
Deanglis, Ashley P., Cincinnati, OH, United States
PA University of Cincinnati, Cincinnati, OH, United States (U.S. corporation)
PI US 5658588 19970819
AI US 1995-414368 19950331 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Kishore, Gollamudi S.
LREP Frost & Jocobs
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 760
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for preparing fibrinogen-coated liposomes is disclosed. In this process, fibrinogen and an acylating agent are reacted in the presence of a dispersion of liposomes under specifically defined reaction conditions. The liposomes formed using this process, pharmaceutical compositions containing those liposomes, and the methods of clotting blood and delivering pharmaceutically-active agents and/or other chemicals utilizing those pharmaceutical compositions are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 31 USPATFULL on STN
AN 97:33507 USPATFULL
TI N-[ω, (ω-1)-dialkyloxy]- and N-[ω, (ω-1)-dialkenyloxy]-alk-1-yl-N, N, N-tetrasubstituted ammonium lipids and uses therefor
IN Eppstein, Deborah A., Menlo Park, CA, United States
Felgner, Philip L., Los Altos, CA, United States
Gadek, Thomas R., Oakland, CA, United States
Jones, Gordon H., Cupertino, CA, United States
Roman, Richard B., Fairhope, AL, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5622712 19970422
AI US 1994-237807 19940504 (8)
RLI Division of Ser. No. US 1993-15738, filed on 10 Feb 1993, now patented, Pat. No. US 5336502 which is a division of Ser. No. US 1990-614412, filed on 16 Nov 1990, now patented, Pat. No. US 5208036 which is a division of Ser. No. US 1990-524257, filed on 15 May 1990, now patented, Pat. No. US 5049386 which is a division of Ser. No. US 1989-428815, filed on 27 Oct 1989, now patented, Pat. No. US 4946787 which is a division of Ser. No. US 1987-114809, filed on 29 Oct 1987, now patented, Pat. No. US 4897355 which is a continuation-in-part of Ser. No. US 1986-877916, filed on 24 Jun 1986, now abandoned which is a continuation-in-part of Ser. No. US 1985-689407, filed on 7 Jan 1985, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Azpuru, Carlos
LREP Heller Ehrman White & McAuliffe
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 3038
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compounds of the formula ##STR1## or an optical isomer thereof wherein R.sup.1 and R.sup.2 are the same or different and are an alkyl or alkenyl group of 6 to 24 carbon atoms; R.sup.3, R.sup.4, R.sup.5 are the same or different and are alkyl of 1 to 8 carbon atoms, aryl, aralkyl of 7 to 11 carbon atoms, or when two or three of R.sup.3, R.sup.4, and R.sup.5 are taken together to form

quinuclidino, piperidino, pyrrolidino, or morpholino; n is 1 to 8; and X is a pharmaceutically acceptable anion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 31 USPATFULL on STN
AN 96:77939 USPATFULL
TI N-(1,(1-1)-dialkyloxy)-and N-(1,(1-1)-dialkenyloxy alk-1-yl-N-N,N-tetrasubstituted ammonium lipids and uses therefor
IN Eppstein, Deborah A., Menlo Park, CA, United States
Felgner, Philip L., Los Altos, CA, United States
Gadek, Thomas R., Oakland, CA, United States
Jones, Gordon H., Cupertino, CA, United States
Roman, Richard B., Fairhope, AL, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5550289 19960827
AI US 1995-415963 19950403 (8)
RLI Division of Ser. No. US 1994-237807, filed on 4 May 1994 which is a division of Ser. No. US 1993-15738, filed on 10 Feb 1993, now patented, Pat. No. US 5366737 which is a division of Ser. No. US 1990-614412, filed on 16 Nov 1990, now patented, Pat. No. US 5208036 which is a division of Ser. No. US 1990-524257, filed on 15 May 1990, now patented, Pat. No. US 5049386 which is a division of Ser. No. US 1989-428815, filed on 27 Oct 1989, now patented, Pat. No. US 4946787 which is a division of Ser. No. US 1987-114809, filed on 29 Oct 1987, now patented, Pat. No. US 4897355 which is a continuation-in-part of Ser. No. US 1986-877916, filed on 24 Jun 1986, now abandoned which is a continuation-in-part of Ser. No. US 1985-689407, filed on 7 Jan 1985, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Azpuru, Carlos
LREP Heller Ehrman White & McAuliffe
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 3043
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compounds of the formula ##STR1## or an optical isomer thereof wherein R.sup.1 and R.sup.2 are the same or different and are an alkyl or alkenyl group of 6 to 24 carbon atoms; R.sup.3, R.sup.4 and R.sup.5 are the same or different and are alkyl of 1 to 8 carbon atoms, aryl, aralkyl of 7 to 11 carbon atoms, or when two or three of R.sup.3, R.sup.4, and R.sup.5 are taken together to form quinuclidino, piperidino, pyrrolidino, or morpholino; n is 1 to 8; and X is a pharmaceutically acceptable anion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 20 OF 31 USPATFULL on STN
AN 96:72662 USPATFULL
TI N-[1, (1-1)-dialkyloxy]-and N-[1, (1-1)-dialkenyloxy]-alk-1-yl-n,n,n-tetrasubstituted ammonium lipids and uses therefor
IN Eppstein, Deborah A., Menlo Park, CA, United States
Felgner, Philip L., Los Altos, CA, United States
Gadek, Thomas R., Oakland, CA, United States
Jones, Gordon H., Cupertino, CA, United States
Roman, Richard B., Fairhope, AL, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5545412 19960813
AI US 1995-415962 19950403 (8)
RLI Division of Ser. No. US 1994-237807, filed on 4 May 1994 which is a division of Ser. No. US 1993-15738, filed on 10 Feb 1993, now patented, Pat. No. US 5366737 which is a division of Ser. No. US 1990-614412, filed on 16 Nov 1990, now patented, Pat. No. US 5208036 which is a

division of Ser. No. US 1990-524257, filed on 15 May 1990, now patented, Pat. No. US 5049386 which is a division of Ser. No. US 1989-428815, filed on 27 Oct 1989, now patented, Pat. No. US 4946787 which is a division of Ser. No. US 1987-114809, filed on 29 Oct 1987, now patented, Pat. No. US 4897355 which is a continuation-in-part of Ser. No. US 1986-877916, filed on 24 Jun 1986, now abandoned which is a continuation-in-part of Ser. No. US 1985-689407, filed on 7 Jan 1985, now abandoned

DT Utility
FS Granted
EXNAM Primary Examiner: Azpuru, Carlos
LREP Heller Ehrman White & McAuliffe
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 3017
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compounds of the formula ##STR1## or an optical isomer thereof wherein R.sup.1 and R.sup.2 are the same or different and are an alkyl or alkenyl group of 6 to 24 carbon atoms; R.sup.3, R.sup.4 and R.sup.5 are the same or different and are alkyl of 1 to 8 carbon atoms, aryl, aralkyl of 7 to 11 carbon atoms, or when two or three of R.sup.3, R.sup.4, and R.sup.5 are taken together to form quinuclidino, piperidino, pyrrolidino, or morpholino, n is 1 to 8; and X is a pharmaceutically acceptable anion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 2001:23423 CAPLUS
DN 134:315968
TI Triggered release of calcium from lipid vesicles: a bioinspired strategy for rapid gelation of polysaccharide and protein hydrogels
AU Westhaus, E.; Messersmith, P. B.
CS Biomedical Engineering Department, Northwestern University, Evanston, IL, 60208, USA
SO Biomaterials (2001), 22(5), 453-462
CODEN: BIMADU; ISSN: 0142-9612
PB Elsevier Science Ltd.
DT Journal
LA English
AB The bioinspired strategy of triggered release of Ca2+ from liposomal compartments was used to induce rapid gelation of polysaccharide and protein-based hydrogels. Thermally triggerable liposomes were designed by entrapping CaCl2 within liposomes constructed of 90% dipalmitoylphosphatidylcholine and 10% dimyristoylphosphatidylcholine. These liposomes released greater than 90% of entrapped Ca2+ when heated to 37°C. A precursor fluid containing liposomes suspended in aqueous sodium alginate remained fluid for several days at room temperature but gelled rapidly when heated to 37°C, as a result of Ca2+ release and formation of crosslinked Ca-alginate. Alternatively, thermally triggered Ca2+ release from liposomes was used to activate enzyme-catalyzed crosslinking of proteins to form hydrogels. A mixture of Ca-loaded liposomes, fibrinogen, and a Ca2+-dependent transglutaminase enzyme (either human recombinant FXIII or guinea pig liver transglutaminase) remained fluid indefinitely when stored at room temperature, but gelled rapidly when heated to 37°C. SDS-PAGE of the reaction mixture revealed that gelation was due to enzymic crosslinking of the α and γ chains of fibrinogen, and oscillating rheometry revealed gel formation within 10 min of heating to 37°C. This new approach may be useful for developing rapidly gelling injectable biomaterials that can be stored at room temperature and injected in a minimally invasive manner into a body tissue or cavity, upon which rapid solidification would occur. This versatile bioinspired strategy could be utilized for the delivery of biomaterials for tissue repair and reconstruction, and local site-directed drug delivery.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
AN 2000:911405 CAPLUS
DN 134:68051
TI Ichthyosis skin diseases amelioration with transglutaminase 1
IN Steinert, Peter; Marekov, Lyuben; Nemes, Zoltan
PA Government of the United States of America, as Represented by the Secretary, Dept. of Health and Human Services, USA
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000078937	A1	20001228	WO 2000-US17235	20000622
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2000057595	A5	20010109	AU 2000-57595	20000622
	US 2003072795	A1	20030417	US 2001-23275	20011213
PRAI	US 1999-140656P	P	19990623		
	WO 2000-US17235	W	20000622		

AB The present invention relates to a method to provide stabilized **transglutaminase** 1 (TGase 1), involucrin, **synthetic lipid vesicle** (**SLV**), and other mols. necessary for the assembly of the cell envelope to skin cells. A synthetic ceramide analog, 16-(16-hydroxyhexadecyl)oxyhecandecanoic acid (lipid Z) and delivery agents, are also included. Also disclosed a methods for lipid Z synthesis. A method of attaching involucrin, TGase 1, and lipid Z to **SLV** is claimed. A method and compns. for ameliorating autosomal recessive ichthyosis (ARI) skin diseases, are claimed. **Transglutaminases** (TGases) are defined as enzymes capable of forming isopeptide bonds by transfer of an amine onto glutaminyl residues of a protein. Here we show that the membrane-bound form of the TGase 1 enzyme can also form ester bonds between specific glutaminyl residues of human involucrin and a synthetic analog of epidermal specific ω-hydroxyceramides. The formation of a ≈5-nm-thick lipid envelope on the surface of epidermal keratinocytes is an important component of normal barrier function. The lipid envelope consists of ω-hydroxyceramides covalently linked by ester bonds to cornified envelope proteins, most abundantly to involucrin. We synthesized an analog of natural ω-hydroxyceramides N-[16-(16-hydroxyhexadecyl)oxypalmitoyl]-sphingosine (lipid Z). When recombinant human TGase 1 and involucrin were reacted on the surface of **synthetic lipid vesicles** containing lipid Z, lipid Z was attached to involucrin and formed saponifiable protein-lipid adducts. By mass spectroscopy and sequencing of tryptic lipopeptides, the ester linkage formation used involucrin glutamine residues 107, 118, 122, 133, and 496 by converting the γ-carboxamido groups to lipid esters. Several of these residues have been found previously to be attached to ceramides in vivo. Mass spectrometric anal. after acetonide derivatization also revealed that ester formation involved primarily the ω-hydroxyl group of lipid Z. Our data reveal a dual role for TGase 1 in epidermal barrier formation and provide insights into the pathophysiol. of lamellar ichthyosis resulting from defects of TGase 1

enzyme. Protein.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
AN 1999:265517 CAPLUS
DN 131:70250
TI Involucrin cross-linking by transglutaminase 1. Binding to membranes directs residue specificity
AU Nemes, Zoltan; Marekov, Lyuben N.; Steinert, Peter M.
CS Laboratory of Skin Biology, NIAMS, National Institutes of Health, Bethesda, MD, 20892-2752, USA
SO Journal of Biological Chemistry (1999), 274(16), 11013-11021
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The **transglutaminase** 1 (TGase 1) enzyme is essential for the assembly of the cell envelope barrier in stratified squamous epithelia. It is usually bound to membranes, but to date most studies with it have involved solution assays. Here we describe an in vitro model system for characterizing the function of TGase 1 on the surface of **synthetic lipid vesicles** (**SLV**) of composition similar to eukaryote plasma membranes. Recombinant baculovirus-expressed human TGase 1 readily binds to **SLV** and becomes active in crosslinking above 10 μM Ca2+, in comparison to above 100 μM in solution assays, suggesting that the membrane surface is important for enzyme function. Involucrin also binds to **SLV** containing 12-18% phosphatidylserine and at Ca2+ concns. above 1 μM. In reactions of involucrin with TGase 1 enzyme in solution, 80 of its 150 glutamines serve as donor residues. However, on **SLV** carrying both involucrin and TGase 1, only five glutamines serve as donors, of which glutamine 496 was the most favored. As controls, there was no change in specificity toward the glutamines of other substrates used by free or **SLV**-bound TGase 1 enzyme. We propose a model in which involucrin and TGase 1 bind to membranes shortly after expression in differentiating keratinocytes, but crosslinking begins only later as intracellular Ca2+ levels increase. Furthermore, the data suggest that the membrane surface regulates the steric interaction of TGase 1 with substrates such as involucrin to permit specific crosslinking for initiation of cell envelope barrier formation.
RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
AN 1999:477718 CAPLUS
DN 131:268814
TI A novel function for transglutaminase 1: attachment of long-chain ω-hydroxyceramides to involucrin by ester bond formation
AU Nemes, Zoltan; Marekov, Lyuben N.; Fesus, Lazlo; Steinert, Peter M.
CS Laboratory of Skin Biology, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 20892-2752, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(15), 8402-8407
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB **Transglutaminases** (TGases) are defined as enzymes capable of forming isopeptide bonds by transfer of an amine onto glutaminyl residues of a protein. Here we show that the membrane-bound form of the TGase 1 enzyme can also form ester bonds between specific glutaminyl residues of human involucrin and a synthetic analog of epidermal specific ω-hydroxyceramides. The formation of a ≈5-nm-thick lipid envelope on the surface of epidermal keratinocytes is an important

component of normal barrier function. The lipid envelope consists of ω-hydroxyceramides covalently linked by ester bonds to cornified envelope proteins, most abundantly to involucrin. We synthesized an analog of natural ω-hydroxyceramides N-[16-(16-hydroxyhexadecyl)oxypalmitoyl]-sphingosine (lipid Z). When recombinant human TGase 1 and involucrin were reacted on the surface of **synthetic lipid vesicles** containing lipid Z, lipid Z was attached to involucrin and formed saponifiable protein-lipid adducts. By mass spectroscopy and sequencing of tryptic lipopeptides, the ester linkage formation used involucrin glutamine residues 107, 118, 122, 133, and 496 by converting the γ-carboxamido groups to lipid esters. Several of these residues have been found previously to be attached to ceramides in vivo. Mass spectrometric anal. after acetonide derivatization also revealed that ester formation involved primarily the ω-hydroxyl group of lipid Z. Our data reveal a dual role for TGase 1 in epidermal barrier formation and provide insights into the pathophysiol. of lamellar ichthyosis resulting from defects of TGase 1 enzyme.

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
AN 1997:422249 CAPLUS
DN 127:158324
TI Sphingosylphosphocholine reduces the calcium ion requirement for activating tissue transglutaminase
AU Lai, Thung-S.; Bielawska, Alicja; Peoples, Keith A.; Hannun, Yusuf A.; Greenberg, Charles S.
CS Department Medicine, Duke University Medical Center, Durham, NC, 27710, USA
SO Journal of Biological Chemistry (1997), 272(26), 16295-16300
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB **Tissue transglutaminase** (tTG) catalyzes a Ca2+-dependent **transglutaminase** reaction resulting in the formation of γ-glutamyl-ε-lysine bonds and is activated during apoptosis to catalyze the formation of apoptotic body. We investigate whether lipids that are membrane components and involved in cell signaling could modify the Ca2+-dependent activation of tTG. We found that sphingosylphosphocholine (lyso-SM) was the only lipid to activate **transglutaminase** at low Ca2+ concns. In the presence of lyso-SM (125 μM), **transglutaminase** was detectable at 10 μM Ca2+, whereas in the absence of lyso-SM, similar activity was obtained at 160 μM Ca2+. Furthermore, in the presence of **lipid vesicles** lyso-SM retained the ability to enhance the Ca2+-dependent activation of tTG. Lyso-SM did not significantly change the Km for the glutamyl and primary amine substrates. However, the Kact for Ca2+ was reduced from 300 μM to 90 μM. Structure-function studies of lyso-SM analogs indicate that phosphocholine group on C1, the free amino group at C2 and a C4-C5 double bond are critical for the activation of **transglutaminase** activity. This is the first demonstration that a specific sphingolipid could enhance the activity of tTG and could play a role in vivo in activation of the tTG at physiol. Ca2+ levels.

L8 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7
AN 1995:267504 CAPLUS
DN 122:38704
TI Interaction of liposome-associated all-trans-retinoic acid with squamous carcinoma cells
AU Parthasarathy, Ranjani; Sacks, Peter G.; Harris, Daniel; Brock, Heidi; Mehta, Kapil
CS M. D. Anderson Cancer Center, University of Texas, Houston, TX, USA

SO Cancer Chemotherapy and Pharmacology (1994), 34(6), 527-34
CODEN: CCPHDZ; ISSN: 0344-5704
DT Journal
LA English
AB Because of their antiproliferative and differentiation-inducing properties, retinoids have been used clin. as therapeutic and chemopreventive agents against squamous-cell carcinomas (SCC). As is the case for many therapeutic agents, however, the administration of retinoids is associated with toxic effects. Because encapsulation of certain drugs in **lipid vesicles** (liposomes) has been shown to result in reduced toxic effects, we studied the in vitro interaction of liposome-encapsulated all-trans-retinoic acid (L-ATRA) with a SCC line (MDA 886Ln) and its multicellular tumor spheroid (MTS) model. Various L-ATRA formulations were tested for incorporation of retinoic acid, toxic effects against human red blood cells, uptake and retention by tumor cells, and antiproliferative effects against SCC. Of the different formulations tested, L-ATRA containing diphosphatidylpalmitoylcholine (DPPC) and stearylamine (SA; 9:1, weight/weight) showed optimal drug incorporation, high stability, and minimal toxicity toward red blood cells and was highly efficacious in delivering ATRA and, thus, in inhibiting the growth of MDA 886Ln and its MTS model. DPPC: SA L-ATRA inhibited the expression of the enzyme keratinocyte **transglutaminase** in epidermal cells as effectively as did the free drug. These results suggest that liposomes can serve as an effective carrier system for the delivery of retinoids to SCC.

L8 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
AN 1983:85115 CAPLUS
DN 98:85115
TI Formation of protein polymers in erythrocyte ghosts incubated with sonicated lipid vesicles. Effects on spectrin extractibility, permeability of ghosts to vesicles, intramembrane particle distribution and bleb formation
AU Alloisio, N.; Giraud, F.; Boutalbi, Y.; Chailley, B.; Delaunay, J.
CS Lab. Chim. Biol., Fac. Med. Grange-Blanche, Lyon, 69373, Fr.
SO Biochimica et Biophysica Acta (1983), 727(2), 255-65
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB The incubation of human erythrocyte white ghosts with phosphatidylcholine (PC) vesicles or cholesterol/phosphatidylcholine (C/PC) vesicles under hypotonic or isotonic conditions generated membrane protein crosslinks. The latter appeared in the form of a high-mol. weight-polymer after SDS-polyacrylamide gel electrophoresis. The polymer started to develop within a few min of incubation, arising largely from spectrin, and required ≥24 h for completion. It occurred regardless of cholesterol depletion undergone by the ghosts in the presence of PC vesicles. It was not reversed upon further incubation in a hypotonic, vesicle-free medium. When initial incubation was carried out under hypotonic conditions, a number of other alterations were recorded: (1) spectrin extractibility was abolished; (2) ghosts became gradually impermeable to vesicles within a few h, a process referred to as slow resealing and generating an irreversible sequestration of the vesicles; (3) intramembrane particles aggregated and blebs free of intramembrane particles pinched off inward or outward. When initial incubation was conducted under isotonic conditions, the following was observed: (1) spectrin was unextractible, as could be expected; (2) vesicles did not enter the ghosts, a fact indicating an immediate and complete impermeabilization of ghosts to vesicles, a process referred to as fast resealing; (3) intramembrane particle aggregation and blebs free of intramembrane particles were also present. When initial incubation was performed under isotonic conditions, but in the absence of vesicles, the polymer failed to be associated with spectrin inextractibility. Evidently, **lipid vesicles** generate a high-mol.-weight polymer-associated, slow resealing of erythrocyte ghosts that differs, at least in part, from the

polymer-free, fast resealing induced by a vesicle-free isotonic medium. Resistance to β-mercaptoethanol of the polymer makes unlikely the sole participation of disulfide bonds. Absence of added Ca2+ in the medium is inconsistent with the **transglutaminase**-catalyzed formation of amide linkages. When ghosts were separated from the vesicles by a cellophane membrane upon hypotonic incubation, spectrin remained extractible and no polymer developed. Sonication of the vesicles under N and in the presence of butylated hydroxytoluene did not prevent the formation of the polymer.

L8 ANSWER 28 OF 31 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2002:432184 SCISEARCH
GA The Genuine Article (R) Number: 553PN
TI Formation of fibrinogen-based hydrogels using phototriggerable diplasmalogen liposomes
AU Zhang Z Y; Shum P; Yates M; Messersmith P B; Thompson D H (Reprint)
CS Purdue Univ, Dept Chem, W Lafayette, IN 47907 USA (Reprint); Northwestern Univ, Dept Biomed Engn, Evanston, IL 60208 USA
CYA USA
SO BIOCONJUGATE CHEMISTRY, (MAY-JUN 2002) Vol. 13, No. 3, pp. 640-646. Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA. ISSN: 1043-1802.
DT Article; Journal
LA English
REC Reference Count: 36
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB We report the triggered release of Ca2+ from liposomal compartments to induce rapid gelation of protein-based hydrogels. Phototriggerable liposomes were designed by entrapping CaCl2 within liposomes composed of 38:57:5 diplasmenyleholine (DPPIsC):disteroylphosphatidyleholine (DSPC): bacteriochlorophyll (Bchl). These liposomes release > 80% of their entrapped Ca2+ within 15 min when irradiated at 800 nm (800 MW/cm(2)). A precursor solution, containing liposomes suspended in aqueous human fibrinogen and transglutaminase (TGase), remained fluid for several hours in the dark, but gelled rapidly when exposed to 800 nm excitation, as a result of photosensitized Ca2+ release and TG-induced fibrinogen cross-linking. TGase and hrFXIII activities, determined using a fluorimetric dansylcadaverine assay, were found to depend strongly on irradiation time and reaction temperature. SDS-PAGE of the photolyzed reaction mixture revealed that gelation arises from enzyme-catalyzed cross-linking of predominately the alpha and gamma chains of fibrinogen. This approach to the phototriggered formation of protein hydrogels creates new opportunities for biomaterials applications in drug delivery, tissue engineering, and wound healing.

=> d bib abs 29-31

L8 ANSWER 29 OF 31 FEDRIP COPYRIGHT 2004 NTIS on STN
AN 2004:166767 FEDRIP
NR CRISP 2R01DE13030-05A1
TI Bioinspired Synthesis of In-Situ Gelling Biomaterials
SF Principal Investigator: MESSERSMITH, PHILLIP B; PHILM@NORTHWESTERN.EDU, NORTHWESTERN UNIVERSITY, 2145 SHERIDAN ROAD
CSP NORTHWESTERN UNIVERSITY, CHICAGO, ILLINOIS
CSS Supported By: NATIONAL INSTITUTE OF DENTAL & CRANIOFACIAL RESEARCH
DB 2008 (/01/98)
FYR 2003
DE 2004 (/30/08)
FU Competing Continuation (Type 2)
FS National Institutes of Health
SUM DESCRIPTION (provided by applicant): **Transglutaminase** enzymes are ubiquitous Ca2+-dependent enzymes that catalyze the formation of crosslinks between glutamine and lysine residues of proteins. Extensive **transglutaminase**-mediated crosslinking of soluble proteins is

believed to be responsible for rapid physical gelation of certain biological fluids. A common biological strategy for regulating the activity of **transglutaminase** enzymes is control of intracellular and extracellular Ca 2+ concentration, mediated by lipid bilayer membranes. Stimuli-responsive **synthetic lipid vesicles** offer a unique opportunity to regulate **transglutaminase**-mediated gelation by sequestering and then releasing enzyme-activating ions such as Ca 2+. We hypothesize that Ca 2+ release from temperature or light sensitive liposomes can be used to trigger TG-mediated crosslinking of peptide-modified polymers to form hydrogels suitable for use as tissue adhesives and for injectable tissue engineering. In this study, combinatorial chemistry will be employed to synthesize large peptide libraries from which short peptide substrates of **transglutaminase** enzymes will be identified. The peptide substrates will be covalently linked to biocompatible polymers, and the TG-catalyzed crosslinking of the polymers into hydrogels will be studied in an effort to formulate injectable solutions that undergo rapid gelation in situ. Stimuli-responsive liposomes will be utilized to trigger calcium activation of enzyme-catalyzed gelation with the goal of developing thermal and light triggered gelation for clinical use. The tissue adhesive potential of these hydrogels will be assessed by measuring the force required to separate articular cartilage surfaces bonded together by in-situ formed hydrogels, and in vitro and in vivo studies will be performed to evaluate the potential of chondrocyte-containing injectable polymer hydrogels to support the formation of cartilage tissue.

L8 ANSWER 30 OF 31 FEDRIP COPYRIGHT 2004 NTIS on STN
AN 2004:151272 FEDRIP
NR CRISP 1Z01AR41086-13
TI Expression, Structure And Function Of The Cornified Cell
SF Principal Investigator: STEINERT, PETER M
CSS Supported By: NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES
FYR 2002
FU Not Applicable
FS National Institutes of Health
SUM A major component of barrier function in stratified squamous epithelia is the cornified cell envelope (CE). This is a multi-component 10 nm thick layer of highly insoluble protein deposited on the inner surface of the plasma membrane of the cells during terminal differentiation. In the case of the epidermis, a 5 nm thick layer of ceramide lipids (lipid envelope) is attached to the exterior surface. The insolubility of the protein envelope is due in large part to the cross-linking of several structural by **transglutaminases.** Studies on the biology and assembly of the protein and lipid components are a major effort of this laboratory. Specifically, we are studying: (i) the cross-linking of proteins in CEs isolated from a variety of sources to explore which proteins are cross-linked together through which glutamines and lysines, and to provide information on structure and function; (ii) several key structural proteins such as loricrin, the small proline rich protein (SPR) families, involucrin, envoplakin and periplakin; (iii) the ceramide lipids which become covalently attached to the CE; (iv) the earliest stages of CE assembly produced in cultured keratinocytes; and (v) an attempt to recreate a CE-like structure using an in vitro **synthetic lipid vesicle** (**slv**) model system. CE protein envelope structure and assembly We are studying the features of CEs isolated from several sources, including human epidermis, cultured human epidermal keratinocytes induced to terminally differentiate, human oral epithelia, human uterine fluid material, and mouse inner root sheaths. We have used controlled proteolysis to dissect apart the CEs, separate cross-linked peptides, and perform protein sequencing. Together, our data are consistent with the possibility that CE assembly is initiated along the plasma membrane at interdesmosomal sites by head-to-head and head-to-tail cross-linking of involucrin to itself, and perhaps to envoplakin and periplakin. Shortly later, involucrin deposition spreads to

desmosomal sites so that a continuous layer of involucrin, envoplakin and perhaps periplakin is formed along the cell periphery: this layer perhaps forms a scaffold for the later stages of CE assembly involving substantial deposition of other proteins such as loricrin and SPRs. Loricrin We have expressed human loricrin in bacteria and used it to characterize its structure, biochemical properties, and cross-linking by epidermal **transglutaminases** (TGase) in vitro. By biophysical measurements it has some structure in solution associated with its multiple tyrosines. It is a complete TGase substrate because it is oligomerized by all three epidermal TGases in in vitro reactions, although with different kinetic efficiencies, and utilization of different glutamines and lysines. From comparisons of the residues used in vitro with those used in vivo from sequencing of CEs, we can conclude that both TGase 1 and TGase 3 are required for the correct cross-linking of loricrin in vivo. We have found that following cross-linking in vitro, loricrin becomes a compact near-spherical in shape and far more soluble. From this we can speculate that epidermal CEs contain about two layers of loricrin molecules. Further, the data suggest that preliminary cross-linking by the **transglutaminase** 3 enzyme may render the protein more soluble to allow transloaction to the cell periphery where it is eventually attached to the growing CE structure. The proximal promoter of the human loricrin gene resides within the first 160 bp above the transcription initiation start site. Our data indicate that there are multiple positively- and negatively-interacting elements which confer tight epidermal specific expression on the loricrin gene during various stages of epidermal differentiation. Small proline rich proteins SPRs consist of four distinct families consisting of from one to 11 members. We have expressed one member of each of the human SPR1, SPR2 and SPR3 proteins for in vitro studies. By circular dichroism, they have little organized structure in solution. What structure is present can be attributed to the central proline-rich peptide repeats, and the signal strength is proportional to the number of repeats. The SPR proteins are also complete substrates in in vitro cross-linking reactions for the three TGases commonly expressed in the epidermis. In all cases of SPR proteins studied, the glutamines and lysines used for cross-linking are located only on the end domains, suggesting they may function as cross-bridging proteins. However, the details are different, which have provided a wealth of information on how the proteins may be used in tissues in vivo. Solution nmr structural studies on the SPR2 and 3 proteins have been performed. Unfortunately, these proteins have little organized structure in solution and only short range interactions were obtained. Nevertheless, the data suggest the central peptide repeat domains adopt novel omega-loop-like protein folds. We have explored the expression of the SPR1 and SPR2 families in mouse epithelia by use of immunocytochemistry, in situ hybridization and RT-PCR. Both families are differentially expressed in different epithelia. In the case of SPR1, the amount expressed in the epidermis varies widely with the site, from which we can conclude that the amounts of SPRs may influence the biomechanical properties of the epidermal body sites. Involucrin We have expressed and purified full-length human involucrin in bacteria and baculovirus systems and showed that it retains some but not all of its expected a-helical content. We have been successful in forming small crystals, minimally useful for Xray diffraction analyses, but improved conditions and larger crystals will be needed now to solve its three-dimensional structure. In addition, various modeling analyses have predicted that the central repeat motifs of members of the small proline rich family might associate with the repeat domain of involucrin. This model has several attractive features, in that it can explain the known in vivo and in vitro biochemical and cross-linking properties of both proteins. Experiments are in progress to test this possibility. Periplakin and Envoplakin These members of the plakin family are intimately involved in the earliest stages of CE assembly in epithelia. We have direct evidence that sequences on their tails are involved in cross-linking to keratin filaments, and other CE proteins, as well as attachment of ceramide lipids. In order to explore this further, we have expressed portions of the rods, tails and rods + tails of each protein.

Crystallization trials have been set up for periplakin in an effort to obtain three-dimensional structural information. Whereas periplakin alone is very soluble in physiological buffers, envoplakin is highly insoluble, but when mixed together, periplakin stabilizes envoplakin into a soluble oligomer (probably heterotetramer). Further, we have found that only intact forms of these two proteins bind to **synthetic lipid vesicles** and in a calcium dependent manner. Our data suggest that as soon as these proteins are expressed in epithelial cells, they will preferentially oligomerize and associate with plasma membranes. Further studies with **transglutaminase** cross-linking with **synthetic lipid vesicles** to investigate their possible roles in the earliest stages of CE assembly.

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TI Government-Owned Inventions; Availability for Licensing
SO Fed. Regist., 17 Aug 2000 (20000817), 65(160), p. 50206. ISSN: 0097-6326; CODEN: FEREAC.
LA English
AB The invention listed, Ichthyosiform Skin Diseases, is owned by agencies of the U.S. Government and is available for licensing in the U.S. in accordance with 35 U.S.C. 207 to achieve expeditious commercialization of results of federally-funded research and development. Many inherited autosomal recessive ichthyoses (ARI) are caused by improper or incomplete lipid barrier function in the skin . It is previously known that the mutations in the **transglutaminase** 1 gene resulting in inactive enzyme is the cause of one ARI disease; lamellar ichthyosis. A principal function of the enzyme is to attach ceramide lipids for complete protein/lipid barrier function in the skin. This invention also describes how to: (1) Make large quantities of this enzyme that can be stored in a stable form ; (2) a simple way to make synthetic ceramide lipid analogs; and (3) make **synthetic lipid vesicles** that can carry, both the enzyme and synthetic ceramide so that it might be applied to affected ARI skin.

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